

STIC Biotechnology Systems Branch

RAW SEQUENCE LISTING ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 10/505,328A
Source: PG
Date Processed by STIC: 4/28/06

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR CRF SUBMISSION AND PATENTIN SOFTWARE QUESTIONS, PLEASE CONTACT MARK SPENCER, TELEPHONE: 571-272-2510; FAX: 571-273-0221

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER VERSION 4.4.0 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:

<http://www.uspto.gov/web/offices/pac/checker/chkrnote.htm>

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail.

Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom.

Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

1. EFS-Bio (<http://www.uspto.gov/ebs/efs/downloads/documents.htm>) , EFS Submission User Manual - ePAVE)
2. U.S. Postal Service: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450
3. Hand Carry, Federal Express, United Parcel Service, or other delivery service (EFFECTIVE 01/14/05):
U.S. Patent and Trademark Office, Mail Stop Sequence, Customer Window, Randolph Building, 401 Dulany Street, Alexandria, VA 22314

Revised 01/10/06



PCT

RAW SEQUENCE LISTING

DATE: 04/28/2006

PATENT APPLICATION: US/10/505,328A

TIME: 09:38:57

Input Set : A:\Sequence.txt

Output Set: N:\CRF4\04282006\J505328A.raw

2 <110> APPLICANT: Korea Advanced Institute of Science and Technology
 4 <120> TITLE OF INVENTION: CONSTRUCTION OF NOVEL STRAINS CONTAINING MINIMIZING
 5 GENOME BY Tn5-COUPLED Cre/loxP EXCISION SYSTEM
 7 <130> FILE REFERENCE: 02730.0020.PCUS00
 9 <140> CURRENT APPLICATION NUMBER: 10/505,328A
 C--> 11 <141> CURRENT FILING DATE: 2004-08-23
 11 <150> PRIOR APPLICATION NUMBER: PCT/KR02/02033
 12 <151> PRIOR FILING DATE: 2002-10-31
 14 <150> PRIOR APPLICATION NUMBER: KR 10-2002-0009647
 15 <151> PRIOR FILING DATE: 2002-02-22
 17 <160> NUMBER OF SEQ ID NOS: 13
 19 <170> SOFTWARE: KopatentIn 1.71
 21 <210> SEQ ID NO: 1
 22 <211> LENGTH: 2437
 23 <212> TYPE: DNA
 24 <213> ORGANISM: Artificial Sequence
 26 <220> FEATURE:
 27 <223> OTHER INFORMATION: chemically synthesized TnKGloxP
 30 <400> SEQUENCE: 1
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 35 actgcggtac ttgcgccgc aaaaattaaa aatgaagttt tgacgggtatc gaaccccaga 180
 37 gtcccgtca gaagaactcg tcaagaaggc gatagaaggc gatgcgctgc gaatcgggag 240
 39 cggcgatacc gtaaagcacg aggaagcggc cagcccatc gccgccaagc tcttcagcaa 300
 41 tatcacgggt agccaacgct atgtcctgat agcgggtccgc cacaccagc cggccacagt 360
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 47 ctggcgcgag cccctgatgc tcttcgtcca gatcatctg atcgacaaga cgggttcca 540
 49 tccgagtacg tgctcgctcg atgcgatggt tcgcttggtg gtcgaatggg caggtagccg 600
 51 gatcaagcgt atgcagccgc cgcattgcat cagccatgat ggatactttc tcggcaggag 660
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 55 ccgcttcagt gacaacgctg agcacagctg cgcaaggaac gcccgctcgtg gccagccacg 780
 57 atagccgcgc tgccctcgtc tggagttcat tcagggcacc ggacagggtcg gtcttgacaa 840
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 61 tctgttgtgc ccagtcctag ccgaatagcc tctccaccga agcggccgga gaacctgcgt 960
 63 gcaatccatc ttgttcaatc atgcgaaacg atcctcatcc tgtctcttga tccactagat 1020
 65 tattgaagca tttatcaggg ttattgtctc atgagcggat acatatattga atgtatttag 1080
 67 aaaaataaac aaataggggt tccgcgcaca tttcccgaa aagtgccacc tgcacgatg 1140
 69 aattgatccg aagttcctat tctctagaaa gtataggaac ttcgaattgt cgacaagctt 1200
 71 gatctggctt atcgaaatta atacgactca ctataggag accggaattc attatttgta 1260
 73 gagctcatcc atgccatgtg taatcccagc agcagttaca aactcaagaa ggaccatgtg 1320
 75 gtcacgcttt tcgttgggat ctttcgaaag ggcagattgt gtcgacaggt aatggttgtc 1380
 77 tggtaaaagg acagggccat cgccaattgg agtattttgt tgataatggt ctgctagtgt 1440

(pg.5) ✓

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PATENT APPLICATION: US/10/505,328A

DATE: 04/28/2006

TIME: 09:38:57

Input Set : A:\Sequence.txt

Output Set: N:\CRF4\04282006\J505328A.raw

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83 aatgtttcca tcttctttaa aatcaatacc ttttaactcg atacgattaa caagggtatc 1620
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91 tggaacaggt agttttccag tagtgcaa ataatttaagg gtaagttttc cgtatgttgc 1860
93 atcaccttca cctctccac tgacagaaaa tttgtgccc ttaacatcac catctaattc 1920
95 aacaagaatt gggacaactc cagtgaagaa ttcttctcct ttactcattt tttctaccgg 1980
97 taccggggga tctctagag tcgacctgca ggcatgcaag cttggcgtaa tcatggatcat 2040
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101 gcataaagtg taaagccttg ggtgccta atgagtgagta actcacatta attgcgttgc 2160
103 gctcactgcc cgctttccag tcgggaaatc caaggcgcaa ttcgagctcg gtaccgggccc 2220
105 cccctcagag ggacctata acttcgtata gcatacatta tacgaagtta tattaagggt 2280
107 tccggaacct ctagagtaga cctctagagt cgacctgcag gcatgcaagc ttcagggttg 2340
109 agatgtgtat aagagacagc tgcattaatg aatcgccaa cgcgcgggga gaggcggttt 2400
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116 <212> TYPE: DNA
117 <213> ORGANISM: Artificial Sequence
119 <220> FEATURE:
120 <223> OTHER INFORMATION: chemically synthesized TnCloxP
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126 gctgtctctt atacacatct caaccatcat cgatgaattc gagctcggta ccgcaaaaat 120
128 taaaaatgaa gttttaaatc aatctaaagt atatatgagt aaacttggtc tgacagttac 180
130 caatgcttaa tcagtggagc accaataact gccttaaaaa aattacgccc cgccctgcca 240
132 ctcatcgagc tactgttgta attcattaag cattctgccg acatggaagc catcacagac 300
134 ggcatgatga acctgaatcg ccagcggcat cagcaccttg tcgccttgcg tataatattt 360
136 gcccatggtg aaaacggggg cgaagaagt gtccatattg gccacgttta aatcaaaact 420
138 ggtgaaactc acccagggat tggctgagac gaaaaacata ttctcaataa accctttagg 480
140 gaaataggcc aggttttcac cgtaacacgc cacatcttgc gaatatatgt gtagaaactg 540
142 ccggaaatcg tcgtggtatt cactccagag cgatgaaaac gtttcagttt gctcatggaa 600
144 aacggtgtaa caagggtgaa cactatccca tatcaccagc tcaccgtctt tcattgccat 660
146 acggaatttc ggatgagcat tcatcaggcg ggcaagaatg tgaataaagg ccggataaaa 720
148 cttgtgctta tttttcttta cggcttttaa aaaggcgtta atatccagct gaacggctcg 780
150 gttataggta cattgagcaa ctgactgaaa tgccctcaaaa tgttctttac gatgccattg 840
152 ggatatatca acggtggtat atccagtgat tttttctcc attttagctt ccttagctcc 900
154 tgaaaatctc gataactcaa aaaatacgcc cggtagtgat cttatttcat tatggtgaaa 960
156 gttggaacct cttacgtgcc gatcaacgct tcattttcgc caaaagttgg cccagggtt 1020
158 cccggtatca acagggacac caggatttat ttattctgcg aagtgatctt ccgtcacagg 1080
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168 tcgagggacc taataacttc gtatagcata cattatacga agttatatta agatcctcta 1380
170 gagtcgacct gcaggcatgc aagcttcagg gttgagatgt gtataagaga cagctgcatt 1440
172 aatgaatcgg ccaacgcgcg gggagaggcg gtttgcgat tgggcgctct tccgcttcc 1500

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RAW SEQUENCE LISTING

DATE: 04/28/2006

PATENT APPLICATION: US/10/505,328A

TIME: 09:38:57

Input Set : A:\Sequence.txt

Output Set: N:\CRF4\04282006\J505328A.raw

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180 <213> ORGANISM: Artificial Sequence
182 <220> FEATURE:
183 <223> OTHER INFORMATION: chemically synthesized OE sequence
186 <400> SEQUENCE: 3
187 ctgtctctta tacacatct 19
190 <210> SEQ ID NO: 4
191 <211> LENGTH: 34
192 <212> TYPE: DNA
193 <213> ORGANISM: Artificial Sequence
195 <220> FEATURE:
196 <223> OTHER INFORMATION: chemically synthesized loxP site
199 <400> SEQUENCE: 4
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204 <211> LENGTH: 996
205 <212> TYPE: DNA
206 <213> ORGANISM: Artificial Sequence
208 <220> FEATURE:
209 <223> OTHER INFORMATION: chemically synthesized KmR gene
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215 cgtcaagaag gcgatagaag gcgatgcgct gcgaatcggg agcggcgata ccgtaaagca 120
217 cgaggaagcg gtcagcccat tcgccgcaa gctcttcagc aatatcacgg gtagccaacg 180
219 ctatgtcctg atagcgggcc gccacacca gccggccaca gtcgatgaat ccagaaaagc 240
221 ggccattttc caccatgata ttcggaagc aggcacgccc atgggtcacg acgagatcct 300
223 cgccgctcgg catccgcgcc ttgagcctgg cgaacagttc ggctggcgcg agcccctgat 360
225 gctcttcgct cagatcatcc tgatcgacaa gaccggcttc catccgagta cgtgctcgct 420
227 cgatgcatg tttcgcttgg tggtcgaatg ggcaggtagc cggatcaagc gtatgcagcc 480
229 gccgcattgc atcagccatg atggatactt tctcggcagg agcaaggtag gatgacagga 540
231 gatcctgccc cggcacttcg cccaatagca gccagtcctt tcccgttca gtgacaacgt 600
233 cgagcacagc tgcgcaagga acgcccgtcg tggccagcca cgatagccgc gctgcctcgt 660
235 cttggagttc attcagggca ccggacaggt cggctcttgac aaaaagaacc gggcgcccct 720
237 gcgctgacag ccggaacacg gcggcatcag agcagccgat tgtctgttgt gccagtcac 780
239 agccgaatag cctctccacc caagcggccg gagaacctgc gtgcaatcca tcttggtcaa 840
241 tcatgcgaaa cgatcctcat cctgtctctt gatccactag attattgaag catttatcag 900
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249 <211> LENGTH: 947
250 <212> TYPE: DNA
251 <213> ORGANISM: Artificial Sequence
253 <220> FEATURE:
254 <223> OTHER INFORMATION: chemically synthesized GFP gene
257 <400> SEQUENCE: 6
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DATE: 04/28/2006

TIME: 09:38:57

Input Set : A:\Sequence.txt

Output Set: N:\CRF4\04282006\J505328A.raw

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260 ggaccatgtg gtcacgcttt tcgttgggat ctttcgaaag ggcagattgt gtcgacaggt      120
262 aatggttgtc tggtaaaagg acagggccat cgccaattgg agtattttgt tgataatgg      180
264 ctgctagttg aacggatcca tcttcaatgt tgtggcgaat tttgaagtta gctttgattc      240
266 cattcttttg tttgtctgcc gtgatgtata catttgttga gttatagttg tactcgagtt      300
268 tgtgtccgag aatgtttcca tcttctttaa aatcaatacc ttttaactcg atacgattaa      360
270 caagggatc accttcaaac ttgacttcag cacgcgtctt gtagttcccg tcatctttga      420
272 aagatatagt gcgttcctgt acataacctt cgggcattgg actcttgaaa aagtcattgcc      480
274 gtttcatatg atccggataa cgggaaaagc attgaacacc ataagagaaa gtagtgacaa      540
276 gtgttggcca tggaaacagg agttttccag tagtgcaaat aaatttaagg gtaagttttc      600
278 cgtatgttgc atcaccttca ccctctccac tgacagaaaa tttgtgcca ttaacatcac      660
280 catctaattc aacaagaatt gggacaactc cagtgaagg tttctctcct ttactcattt      720
282 tttctaccgg taccggggga tcctctagag tcgacctgca ggcattgcaag cttggcgtaa      780
284 tcatggtcac agctgtttcc tgtgtgaaat tggtatccgc tcacaattcc acacaacata      840
286 cgagccggaa gcataaagt taaagcctgg ggtgcctaag gtagtgacta actcacatta      900
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292 <211> LENGTH: 1069
293 <212> TYPE: DNA
294 <213> ORGANISM: Artificial Sequence
296 <220> FEATURE:
297 <223> OTHER INFORMATION: chemically synthesized CmR gene
300 <400> SEQUENCE: 7
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305 ccctgccact catcgcagta ctgttgtaat tcatatagca ttctgccgac atggaagcca      180
307 tcacagacgg catgatgaac ctgaatcgcc agcggcatca gcacctgtgc gccttgcgta      240
309 taatatttgc ccatggtgaa aacggggggc aagaagttgt ccatattggc cactgtttaa      300
311 tcaaaactgg tgaaactcac ccagggattg gctgagacga aaaacatatt ctcaataaac      360
313 cctttaggga aataggccag gttttcacg taacacgcca catcttgcca atatagtgt      420
315 agaaactgac ggaaatcgtc gtggtattca ctccagagcg atgaaaacgt ttcagtttgc      480
317 tcatggaaaa cgggtgaaca aggggaaca ctatcccata tcaccagctc accgtctttc      540
319 attgccatac ggaatttcgg atgagcattc atcaggcggg caagaatgtg aataaaggcc      600
321 ggataaaact tgtgcttatt tttctttacg gtctttaaaa aggcgtaat atccagctga      660
323 acggctctgg tataggtaca ttgagcaact gactgaaatg cctcaaaatg ttctttacga      720
325 tgccattggg atatatcaac ggtggtatat ccagtgattt ttttctccat tttagcttcc      780
327 ttagctcctg aaaatctcga taactcaaaa aatacgcccg gtagtgatct tatttcatta      840
329 tggtgaaagt tggaaacctc tacgtgccga tcaacgtctc attttcgcca aaagttggcc      900
331 cagggtctcc cggatcaaac agggacacca ggatttattt attctgcgaa gtgatcttcc      960
333 gtcacaggtg tttattcggc gcaaatgctg tcgggtgatg ctgccactt actgatttag      1020
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338 <210> SEQ ID NO: 8
339 <211> LENGTH: 19
340 <212> TYPE: DNA
341 <213> ORGANISM: Artificial Sequence
343 <220> FEATURE:
344 <223> OTHER INFORMATION: chemically synthesized primer-pMODFP-1
347 <400> SEQUENCE: 8
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351 <210> SEQ ID NO: 9

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RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/505,328A

DATE: 04/28/2006

TIME: 09:38:57

Input Set : A:\Sequence.txt

Output Set: N:\CRF4\04282006\J505328A.raw

352 <211> LENGTH: 22
 353 <212> TYPE: DNA
 354 <213> ORGANISM: Artificial Sequence
 356 <220> FEATURE:
 357 <223> OTHER INFORMATION: chemically synthesized primer-pMODRP-1
 360 <400> SEQUENCE: 9
 361 tcagtgagcg aggaagcgga ag 22
 364 <210> SEQ ID NO: 10
 365 <211> LENGTH: 28
 366 <212> TYPE: DNA
 367 <213> ORGANISM: Artificial Sequence
 369 <220> FEATURE:
 370 <223> OTHER INFORMATION: chemically synthesized primer-Tn5Ext
 373 <400> SEQUENCE: 10
 374 agcatacatt atacgaagtt atattaag 28
 377 <210> SEQ ID NO: 11
 378 <211> LENGTH: 35
 379 <212> TYPE: DNA
 380 <213> ORGANISM: Artificial Sequence
 382 <220> FEATURE:
 383 <223> OTHER INFORMATION: chemically synthesized primer-Arb1
 386 <400> SEQUENCE: 11
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 391 <211> LENGTH: 20
 392 <212> TYPE: DNA
 393 <213> ORGANISM: Artificial Sequence
 395 <220> FEATURE:
 396 <223> OTHER INFORMATION: chemically synthesized primer-Arb2
 399 <400> SEQUENCE: 12
 400 ttgagcgata gacgtacgat
 403 <210> SEQ ID NO: 13
 404 <211> LENGTH: 25
 405 <212> TYPE: DNA
 406 <213> ORGANISM: Artificial Sequence
 408 <220> FEATURE:
 409 <223> OTHER INFORMATION: chemically synthesized primer-Tn5Int
 412 <400> SEQUENCE: 13
 413 tcgacctgca ggcattgcaag cttca 25

"N"
 locations. 35
 X pls explain

See error
 explanation
 20
 on page
 7.
 =

RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/10/505,328A

DATE: 04/28/2006
TIME: 09:38:58

Input Set : A:\Sequence.txt
Output Set: N:\CRF4\04282006\J505328A.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:11; N Pos. 21,22,23,24,25,26,27,28,29,30

VARIABLE LOCATION SUMMARY

PATENT APPLICATION: US/10/505,328A

DATE: 04/28/2006

TIME: 09:38:58

Input Set : A:\Sequence.txt

Output Set: N:\CRF4\04282006\J505328A\raw

Use of n's or Xaa's (NEW RULES):

Use of n's and/or Xaa's have been detected in the Sequence Listing.

Use of <220> to <223> is MANDATORY if n's or Xaa's are present.

in <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.

Seq#:11; N Pos. 21,22,23,24,25,26,27,28,29,30

ERROR Explanation: 2

✓

VERIFICATION SUMMARY

DATE: 04/28/2006

PATENT APPLICATION: US/10/505,328A

TIME: 09:38:58

Input Set : A:\Sequence.txt

Output Set: N:\CRF4\04282006\J505328A.raw

L:11 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:387 M:258 W: Mandatory Feature missing, <221> Tag not found for SEQ ID#:11
L:387 M:258 W: Mandatory Feature missing, <222> Tag not found for SEQ ID#:11
L:387 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11 after pos.:0